

Attorney Docket No. 01250/LH

**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant(s): H. TAJIMA et al

Serial No. :

Filed : Herewith

For : SAMPLE CHIP ANALYZING
DEVICE AND METHOD
FOR ANALYZING THE
SAME

Art Unit :

Examiner :

PRELIMINARY AMENDMENT

Asst. Commissioner for Patents
Washington, D.C. 20231

S I R :

Please amend the above-identified application as follows:

IN THE CLAIMS:

Please substitute the following amended claims 3-6 for the original claims 3-6:

3. (amended) The sample chip analyzing device and method for analyzing a sample chip according to Claim 1, wherein said waveguide plate is a glass substrate.

4. (amended) The sample chip analyzing device and method for analyzing the sample chip according to Claim 1, wherein said waveguide plate has a pair of insulation reflection plates arranged opposite to each other with an appointed interval.

Express Mail Mailing Label
No.: EL 797 382 468 US

Date of Deposit: May 2, 2001

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Asst. Commissioner for Patents, Washington, D.C. 20231


Barbara Villani

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper, to Account No. 06-1378.

5. (amended) The sample chip analyzing device and method for analyzing the sample chip according to Claim 1, wherein said light source outputs light of a wavelength that pumps the marked fluorescent substances.

6. (amended) The sample chip analyzing device and method for analyzing the sample chip according to Claim 1, wherein said sampling probes and sample to be analyzed are made into any one of polynucleotide, peptide and protein.

Please add the following new claims:

--7. (new) The sample chip analyzing device and method for analyzing a sample chip according to Claim 2, wherein said waveguide plate is a glass substrate.

8. (new) The sample chip analyzing device and method for analyzing the sample chip according to Claim 2, wherein said waveguide plate has a pair of insulation reflection plates arranged opposite to each other with an appointed interval.

9. (new) The sample chip analyzing device and method for analyzing the sample chip according to Claim 2, wherein said light source outputs light of a wavelength that pumps the marked fluorescent substances.

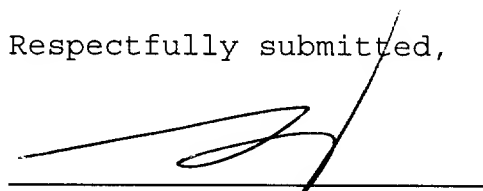
10. (new) The sample chip analyzing device and method for analyzing the sample chip according to Claim 2 wherein said sampling probes and sample to be analyzed are made into any one of polynucleotide, peptide and protein.--

R E M A R K S

In accordance with 37 CFR 1.121(c), a clean copy of amended claims 3-6 is set forth in the present Amendment, and a marked-up version of the amended claims 3-6 is attached hereto.

The amendment is being made to eliminate the multiple dependency of claims 3-6.

Respectfully submitted,



LEONARD HOLTZ,
Reg. No. 22,974

Frishauf, Holtz, Goodman, Langer & Chick, P.C.
767 Third Avenue - 25th Floor
New York, New York 10017-2023
(212) 319-4900
Fax No. (212) 319-5101
LH/bv

1. A sample chip analyzing device, comprising:

a waveguide plate, which is able to entirely reflect incident light and guide the same, having a number of sampling probes on the surface thereof;

a light source for irradiating light from the end plane of said waveguide plate to the interior thereof; and

a pickup member for picking up an image of the surface of said waveguide plate on which said sampling probes are fixed;

wherein light is entirely reflected in the waveguide plate in which a sample to be analyzed, marked with fluorescent substances, is coupled to the sampling probes, the fluorescent substances are pumped by an evanescent wave occurring when guiding optical waves, and are caused to fluoresce, and a sample to be analyzed is able to be analyzed by a fluorescent image on the picked up surface of the waveguide plate.

2. A method for analyzing a sample chip, comprising the steps of:

pumping marked fluorescent substances of a sample to be analyzed, which are coupled to sampling probes by an evanescent wave occurring when making light from a light source incident into a waveguide plate, in which a number of sampling probes are fixed on the surface thereof, and guiding the same to the waveguide plate;

causing the marked fluorescent substances to fluoresce; and

analyzing said sample to be analyzed, on the basis of a fluorescent image on the picked up surface of said waveguide.

✓ 3. The sample chip analyzing device and method for analyzing a sample chip according to Claim 1 [or 2] wherein said waveguide plate is

a glass substrate.

✓ 4. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 [or 2], wherein said waveguide plate has a pair of insulation reflection plates arranged opposite to each other with an appointed interval.

✓ 5. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 [or 2], wherein said light source outputs light of a wavelength that pumps the marked fluorescent substances.

✓ 6. The sample chip analyzing device and method for analyzing the sample chip according to Claim 1 [or 2], wherein said sampling probes and sample to be analyzed are made into any one of polynucleotide, peptide and protein.